Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (canceled)
- 2. (currently amended) A device according to claim 4 <u>9</u>, wherein a respective one of said at least one measurement <u>modules module</u> is associated to a respective one of said at least one estimation <u>modules module</u>, and

each of said at least one of said associated measurement and estimation modules is spatially distributed to a corresponding switching unit of a switch device of said packet data network.

- 3. (currently amended) A device according to claim 1 9, wherein said measurement and estimation modules respectively associated to each other are coupled via a measurement result interface comprising a commonly used memory area.
 - 4. (canceled)
- 5. (currently amended) A <u>measurement-based connection admission control</u> device according to claim 4, for a packet data network, comprising

at least one measurement module adapted to measure packet data traffic in said packet data network and to output corresponding measurement results, said measurement module comprises counting means which measure the packet data traffic on a per packet basis by counting data packets;

at least one estimation module adapted to perform an estimation to obtain an estimated maximal rate envelope of traffic based on said measurement results, and

an admission control module adapted to admit a requested new connection in said packet data network based on the estimated maximal rate envelope of traffic,

wherein said measurement result interface further comprises a measurement result ready indicator adapted to be set by said measurement module and to be read by said at lease one estimation module, and wherein said at least one estimation module is adapted to copy results indicated to be ready by said ready indicator from said commonly used memory area for being processed by said estimation module.

- 6. (previously presented) A device according to claim 5, wherein said ready indicator is set after a longest measurement interval has passed.
- 7. (currently amended) A device according to claim 5, wherein said <u>at least</u> one estimation module is adapted to reset a partition of the memory area holding the copied results after the results have been copied.
- 8. (previously presented) A device according to claim 5, wherein said ready indicator is a queue.

9. (currently amended) A <u>measurement-based connection admission control</u> device according to claim 4, for a packet data network, comprising

at least one measurement module adapted to measure packet data traffic in said packet data network and to output corresponding measurement results, said measurement module comprises counting means which measure the packet data traffic on a per packet basis by counting data packets;

at least one estimation module adapted to perform an estimation to obtain an estimated maximal rate envelope of traffic based on said measurement results, and

an admission control module adapted to admit a requested new connection in said packet data network based on the estimated maximal rate envelope of traffic, wherein a reading operation from said counter counting means and an update operation of previously measured results is prioritized, so that stability of the device under processor overload situations is achieved.

- 10. (currently amended) A device according to claim 4 9, wherein said admission control module is adapted to control a switch device of said packet data network and requests the at least one estimation module to report a current state of connections, and said admission control module is adapted to take an admission decision based on said report.
- 11. (previously presented) A device according to claim 2, wherein said measurement and estimation modules respectively associated to each other are coupled via a measurement result interface comprising a commonly used memory area.

- 12. (previously presented) A device according to claim 6, wherein said ready indicator is a queue.
- 13. (new) A device according to claim 9, wherein said measurement result interface further comprises a measurement result ready indicator adapted to be set by said measurement module and to be read by said estimation module, and wherein said estimation module is adapted to copy results indicated to be ready by said ready indicator from said commonly used memory area for being processed by said estimation module.
- 14. (new) A device according to claim 13, wherein said ready indicator is set after a longest measurement interval has passed.
- 15. (new) A device according to claim 13, wherein said at least one estimation module is adapted to reset a partition of the memory area holding the copied results after the results have been copied.
- 16. (new) A device according to claim 13, wherein said ready indicator is a queue.